

ABSTRACT

Low distortion current switches for high speed current steering digital-to-analog converters. The current switches use a compensation method for improving the spurious performance of a CMOS current steering DAC for high output frequencies caused by the capacitance of the common node of the switch transistors. For this purpose, a replica switch is provided, with the voltage change on the common node of the replica switch being used to provide a corresponding charge to the common node of the main switch in an amount equal to the charge needed to change the voltage on the common node of the main switch by the same amount as the voltage change on the common node of the replica switch. Multiple embodiments are disclosed.